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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,757	04/05/2006	Dominik Sieber	SFS-PT066 (P0379US)	2536
3624 7590 06/05/2008 VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER TRIGGS, ANDREW J	
			ART UNIT 3635	PAPER NUMBER
			MAIL DATE 06/05/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,757

Applicant(s)

SIEBER, DOMINIK

Examiner

Andrew J. Triggs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-893)
Paper No(s)/Mail Date 4/5/2006, 6/5/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kob, German Patent # 299 20 853 in view of Mattle, US Patent # 6,829,866.

Regarding claim 1, Kob teaches, in Figure 1 (Shown Below), a wood wall construction

(1) made of wooden beams (2) that are assembled using screws (3) from the upper side of the beam. The screw (3) bridges two adjacent beams (2) together in an attachment area. The attachment area for the screws (3) only expands part of the thickness of the beam (2). It can be seen the screws (3) have threaded sections at both ends of the screw (3). Kob does not teach the screws are screwed-in without pre-drilling or that the length of the screws is smaller than the height of the wooden beams. However, Mattle teaches wooden beams that are held together via screws (Abstract). Mattle also teaches that the screws can be screwed into the beam without pre-drilling the hole that makes it possible to insert the screw deep into the beam (Column 2, Lines 8-11). Finally, Mattle teaches the length of the screws can be shorter than half the height of the beam (Column 2, Lines 3-5). The length of the screws yields cost savings in materials and they also have a low turning moment which helps screwing in the

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screws (Column 2, Lines 5-8). One of ordinary skill in the art at the time of the invention would have been motivated to modify the wooden wall of Kob with the screws of Mattle because the screws would save on material costs. The screws would also have a low turning moment that reduces the required force in screwing in the screws which in turn lets the screws be driven deeper into the beam. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

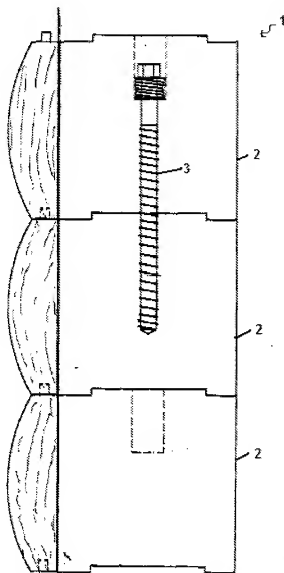


Figure 1

Regarding claim 2, Kob does not necessarily teach the screws extend equally far into both beams. However, Mattle teaches the screw threads extend equally far on both sides to provide adequate anchoring strength (Column 1, Lines 61-67). One of ordinary skill in the art at the time of the invention would have been motivated to screw in the screws so that an equal number of threads were in both beams

because that insures an equal distribution of stress enabling the screw to anchor the two beams together strongly. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 3, Kob does not teach at least two screws that are spaced apart and parallel to each other. However, Mattle teaches, in Figure 3, two screws that are screwed into the attachment area and are spaced apart and parallel to each other (Column 2, Lines 16-21). Mattle uses two or more screws because they can provide exceptional transverse tension reinforcement (Column 2, Lines 21-25). One of ordinary skill in the art at the time of the invention would have been motivated to modify the wood wall of Kob with two or more screws because two screws provide additional strength opposed to using just one screw. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

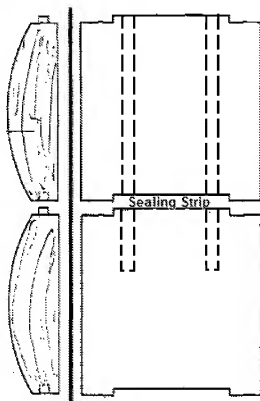
Regarding claim 4, Kob teaches a wooden wall but his screw is not threaded the entire length. However, Mattle's screw that does not require pre-drilling is threaded the entire length in order to absorb high tension forces over their entire length (Column 2, Lines 27-31). One of ordinary skill in the art at the time of the invention would have been motivated to have screws that have threads down their entire length because the screw could then evenly distribute a load along the entire length. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

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Regarding claim 5, Kob teaches a wooden wall but does not teach the screws have an interior tool grip and that the diameter of the tool grip is equal or slightly larger than the outside diameter of the threads. However, Mattle teaches a screw that has an internal drive and the diameter of the segment is equal to or slightly greater than the outside diameter of the thread (Column 2, Lines 32-36). The drive head lets the screw be screwed deeply without significant increase in screwing moment and without damage to the threaded regions inside the wood. (Column 2, Lines 36-39). One of ordinary skill in the art at the time of the invention would have been motivated to have a screw with an internal drive that has a head the same size or only slightly larger than the diameter of the threads in order to be able to drive the screw deep into a wooden beam. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 6, Kob nor Mattle teach a strip-shaped sealing material. However, strip-shaped sealing materials are well known in the art. If a sealing strip were used in the wooden wall of Kob, it would be placed as shown in the Figure below. Furthermore, if the invention included two or more screws for securing the beams together, as in applicant's claim 3, they would be located away from the center of the beam and toward the edge. With the screws toward the edge of the beam, they would come into contact with the sealing strip at its edge regions. However, the applicant has not disclosed why screws located at the edge of the strip-shaped sealing material is of a particular purpose and it appears that screws

located anywhere on the sealing strip would perform just as well. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.



Regarding claim 7, Kob teaches, in Figure 1, that the screws are screwed-in perpendicularly in reference to a longitudinal extension of the wooden beam. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

3. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kob, German Patent # 299 20 853 in view of Mattle, US Patent # 6,829,866 in further view of Callison, US Patent # 5,283,994.

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Regarding claim 8, Kob teaches a wooden wall and Mattle teaches a screw to attach the beams together but they do not teach the screws are screwed in at acute angles. However, Callison teaches a landscape timber system that is secured together with a plurality of spikes that are driven in at acute angles as shown in Figure 5. Callison drives his spikes in at angles in order to provide both horizontal and vertical stability (Column 3, Lines 37-47). One of ordinary skill in the art at the time of the invention would have been motivated to modify beam attachment means to further include screws driven in at acute angles because screws at angles add horizontal stability. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 9, Kob and Mattle teach a wooden wall with screws that are driven in vertically, perpendicular to a longitudinal extension reference from one of the wooden beams. Callison teaches a wooden wall with spikes driven in at an acute angle. One of ordinary skill in the art at the time of the invention would have been motivated to build a wooden wall that uses screws as fasteners wherein the screws were oriented both vertically and at acute angles. Screws in these directions would insure horizontal and vertical stability. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 10, Kob in view of Mattle in further view of Callison teach a wooden wall with screws that are driven in vertically and at acute angles but they do not teach that the screw orientations are alternated. Applicant does not disclose that

alternating screw positions would solve any stated problem. Applicant only states that perhaps the screws could be screwed-in in an alternating pattern and an optimum solution can be chosen. It would be obvious to try to arrange the screws in different orientations in order to achieve the strongest connection possible. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Regarding claim 11, Kob in view of Mattle in further view of Callison teach a wooden wall with screws that are driven in vertically and at acute angles but they do not teach screws that cross each other. Applicant does not disclose that screwed-in pairs of screws that cross one another serves any particular purpose or solves any problem. It appears that screws that do not cross would perform equally well. Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time of the invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew J. Triggs whose telephone number is 571-270-3657. The examiner can normally be reached on Monday through Thursday 7:00am - 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot/
Supervisory Patent Examiner, Art
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/Andrew J Triggs/
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